

FREE STRUCTURES IN DIVISION RINGS

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Makar-Limanov's conjecture states that if a skew field D with center k is finitely generated and infinite dimensional over k then D contains a free (noncommutative) k -algebra. We will present techniques by Makar-Limanov and Lorenz to prove this conjecture when D is the skew field of fractions of the skew polynomial ring $L[t; \sigma]$, where L is the function field of a curve over k and σ is a k -automorphism of infinite order of L . Next, we will explain how we intend to extend these techniques in order to prove the conjecture when L is the function field of an abelian variety.

References

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